

## Section 915. BRIDGE COATING SYSTEMS

**915.01 General Requirements.** The Contractor shall select a complete coating system from the Qualified Products List. The system will consist of an organic zinc-rich primer, a high-build intermediate coat, and a urethane top coat. The primer shall be tinted, the intermediate shall be white and the top coat shall match the Federal Standards No. 595 color number as listed on the plans. Before any coating is started, the Contractor shall supply the Engineer with the product data sheets showing mixing and thinning directions, and the recommended spray nozzles and pressures. The coating shall be applied by spray equipment.

**915.02 Mixing the Coating.** Mix the coating according to the manufacturer's recommendations, to a homogenous consistency using a high shear mixer (such as Jiffy Mixer). Paddle mixers or paint shakers are not permitted. Continue mixing until all the metallic powder or pigment is in suspension. Thoroughly disperse any coating solids that may have settled to the bottom of the container. Strain the coating through a screen with openings no larger than the No. 50 sieve in ASTM E 11. After straining, continuously agitate the primer until application is complete.

**915.03 Thinning the Coating.** Coatings are usually supplied for use without thinning. Follow manufacturer's recommendations if thinning is necessary.

**915.04 Conditions for Coating.** Coating shall be applied only when the following conditions have been met:

- A. **Temperature.** Do not apply any coatings if air or steel temperature exceed 100 °F or if the steel temperature is less than 5 °F higher than the dew point. Apply the primer and intermediate coats only when air, coating material and steel temperatures are above 50 °F. Apply the top coat only when air, coating material and steel temperatures are above 40 °F. Unless the manufacturer recommends a longer recoat time, maintain the minimum air and steel temperatures between coats for 24 hours in the field or for 16 hours in the fabrication shop.
- B. **Humidity.** The coating shall not be applied when the relative humidity is greater than 90 percent, or when temperature and humidity conditions cause moisture to condense on the surface being coated. The humidity shall be measured with a psychrometer.
- C. **Heating.** Heaters must maintain the air and steel temperatures between 50 °F and 100 °F without discharging oils or other pollutants into the enclosure.
- D. **Storage and Shelf Life of Coating.** The coatings must be stored according to the manufacturer's directions and used within one year of the date of manufacture unless the product data sheets indicate a shorter time.